

TITLE

## FLUID CONDUIT AND PROCESS THEREFOR

ABSTRACT

A conduit such as a nozzle having its surface or a portion of its surface  
5   coated with a thin fluid-repellent layer is disclosed. The layer comprises or is  
produced from a fluorocarbon silane or a substantially aqueous emulsion. The  
emulsion comprises or is produced from (1) a fluorocarbon silane or its  
hydrolyzate, (2) water, and (3) optionally a surfactant, a silicon compound, a  
catalyst, or combinations of two or more thereof where the fluorocarbon silane  
10   has the formula  $R_f-(CH_2)_p-Si\{-(O-CH_2CH_2)_n-OR^1\}_3$  and the silicon compound can  
be a silicate or an organoalkoxysilane;  $R_f$  is a  $C_{3-18}$  perfluoroalkyl group or  
combinations of two or more thereof; each  $R^1$  is independently one or more  $C_{1-3}$   
alkyl groups;  $p$  is 2 to 4; and  $n$  is 2 to 10.